



April 25, 2016

Via Email to PUBLIC-COMMENT@twdb.texas.gov

Ms. Connie Sanders
Office of General Counsel
Texas Water Development Board
P.O. Box 13231
Austin, Texas 78711-3231

Re: Comments on Draft 2017 State Water Plan

Dear Ms. Sanders:

The Central Texas Water Coalition (CTWC), a non-profit organization advocating for responsible water management and conservation policies, appreciates the opportunity to provide these comments on the Draft 2017 State Water Plan (2017 Plan) and the 2017 Interactive State Water Plan website. These documents reflect the end-result of tremendous efforts by hundreds of Texans who share our interest in assuring that this precious resource will be available for future generations, and they are truly impressive products of those collaborative efforts. The online availability of the State's Water Planning documents through the years is very helpful, and the interactive Water Plan is a wonderful tool for researching and understanding the important information presented in the Plan. Please relay our gratitude to everyone who worked on the 2017 Plan, including the members of the Regional Water Planning Groups and the employees of the Texas Water Development Board (TWDB).

The following comments are respectfully submitted for the TWDB's consideration:

General Comments

First, we encourage the TWDB to continue its efforts to identify, develop, compile, evaluate, and present the vital data on Water Demand, Water Supply, Water Needs, and Water Management Strategies in a manner that utilizes and recognizes sound science, accurate data, and modern technologies. Instead of producing Regional and State Water Plans that are largely edited versions of a prior Plan, the documents produced at the end of each five-year planning cycle should represent a new, creative, and open-minded version of the work conducted during the planning cycle. Please continue to provide technical and regulatory support for the Regional Water Planning Groups (RWPGs) as they undertake the sometimes monumental tasks that are critical to the production of meaningful and timely Regional Water Plans, and utilize the tremendous scientific and technical expertise of the agency's staff and the agency's resources to review and analyze the information presented for use in the State Water Plan.

Second, we encourage the agency to carefully review the narrative portions of the 2017 Plan, especially the introductory sections, to confirm that the information is current. For example, the background discussion on Texas groundwater law mentions the *East* case decided in 1904, but does not mention more recent case law (such as the cases decided in 2012). Also, some details, such as agency organization descriptions, might need to be double-checked before the Plan becomes final. It is our impression that the State Water Plan has gained recognition over time as an authoritative document with contents that may have significant consequences in the development of water projects. As such, we urge the TWDB to continue to closely double-check the factual and legal statements contained in the 2017 Plan prior to its final publication.

Comments Specific to the Content of the State Water Plan

- I. The TWDB should continue improving upon the data that forms the basis of the Water Demands, Water Supplies, Water Needs (Shortages), and Water Management Strategies to satisfy those Needs. To facilitate this objective, we offer the following suggestions and comments:
 - A. Encourage the development and timely updating of accurate hydrologic and geohydrologic data to incorporate observed and predicted changes due to population growth and/or land development in a watershed (such as the proliferation of stock tanks) and to address other activities that may adversely affect the inflows into reservoirs (such as pumping from alluvial wells). Without timely updating of hydrologic data on inflows into reservoirs, the Firm Yield calculations for those reservoirs may be overstated, and the Region's assumptions regarding available water supplies may be seriously flawed.
 - B. Add a section in the State Water Plan that includes a discussion of the climate-related differences, drivers, and impacts that may be observed across the geographic extent of some of the Regions. For example, in Region K, the lower Colorado River Basin covers a vast area reaching from the Texas Hill Country, to the Balcones Escarpment, to the Gulf of Mexico. The Balcones Escarpment and the Gulf Coast Plains typically experience widely different rainfall amounts. These variations within a Region should be acknowledged and planning should be adapted accordingly.
 - C. Include information acknowledging and addressing the extended drought cycle that the State is currently experiencing, and note that while the Regions may be using a Drought of Record from the 1950s for planning purposes in the 2017 Plan, the TWDB is closely watching the latest reports and a new Drought of Record may be used in future Water Plans. There are indications from respected scientists that recently observed patterns of extended drought-related climatology cycles have been more severe than the Drought of Record that is currently used for water planning purposes. We encourage the TWDB to look closely at this

information and acknowledge the possibility that current water planning processes may not provide sufficient responsiveness and protection for the State's water resources.

- D. Continue the TWDB's current efforts to better refine the identification and geographic extent of the various Municipal Water Users within the State, so that data on their water usages is more accurate.
- E. In situations where Water Users have been non-responsive to requests for data and annual Water Use Surveys, encourage TWDB and/or RWPG representatives to assist the Water Users in completing and submitting the requested data in a timely manner.
- F. Continue the agency's efforts to re-evaluate its Water Demand projection methodologies for the Irrigation, Manufacturing, and Steam-Electric Power Water User Groups. As additional data and technologies become available, the TWDB should take advantage of these advancements whenever possible.
- G. Develop a metric for the surface water component of the Irrigation water use category. The quantities of water used for agricultural irrigation are so significant that the TWDB should take an active role in assuring that the numbers it utilizes are as accurate as possible. This metric should recognize the acre-feet per acre "duty" that was allocated for each crop and each acre to be irrigated when the surface water rights for agricultural irrigation uses were issued by the State. The amount of irrigation water used under this metric should decline over time, as advancements and efficiencies in agricultural and irrigation practices have occurred. The TWDB should not propose or approve irrigation demand numbers that are calculated without regard to the limitations under the water rights that were issued for the particular irrigation uses, or without regard to the supplemental use of groundwater to apply to the same irrigated fields. In other words, the current methodology for determining irrigation water demands should be replaced with a methodology that accounts for real-world conditions, as well as technical, contractual, and regulatory constraints on projected demands. Irrigation demands should not be based solely on a number that was used in a recent State Water Plan, with an estimated upward or downward adjustment to estimate possible future water demands. Instead, Irrigation demands should be determined using the wealth of available data that now exists, with the application of a uniform metric (such as acre-feet per acre per year multiplied by the number of acres under irrigation for each crop that is expected to be irrigated).

Better refining these massive irrigation demand numbers may have a significant impact on the remaining aspects of the State Water Plan, since extremely high demand numbers, when compared to available water supplies, may identify massive water shortages in the sector. Once massive shortages are identified,

regional water planners are asked to identify Water Management Strategies to meet those shortages. If conservation is a Water Management Strategy for an Irrigation WUG, the success of the conservation efforts is difficult to measure, since the metrics for water use are absent. Due to the magnitude and impact of the Irrigation demand numbers used in water planning throughout the State, the TWDB would be well-served to develop and implement a water use metric for Irrigation that is as accurate and current as possible – more actual than theoretical – and that incorporates the technical and legal considerations that are inherent in the water rights that authorize the irrigation uses.

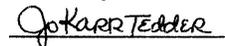
- H. Encourage the RWPGs to recognize the importance of non-consumptive water uses in the Water Uses identified within each Region. For example, maintaining a minimum lake level in some reservoirs not only protects critical drinking water supplies, but it also enables power plants to draw from the lake, and assists in maintaining the tax base for waterfront property owners who pay property taxes for local government services. Maintaining a minimum lake level also supports the environmental needs of a water body, and sustains its fish and wildlife, as well as providing significant economic benefits to the tourism industry associated with the reservoir. Please consider and include these interests and encourage the RWPGs to include this kind of information in future Regional Water Plans.
- II. Regional and State Water Plans should apply uniform standards for measuring and reporting water use among all Water User Groups (WUGs), so that data reported by the various water users within every Region (and across all Regions) can be compared and analyzed in a meaningful way. We offer these suggestions to achieve these goals:
- A. Confirm that Municipal Water User Groups (WUGs) are applying their metric for water use (gallons per capita per day) in a consistent manner.
 - B. Develop and utilize a metric for the measurement and reporting of water usage, so that data on water demands, shortages, conservation efforts, and other strategies for meeting shortages can be accurately evaluated. For Municipal Water Users, we understand that water use on a gallons per capita per day (GPCD) basis is the metric for the Water Plans. We also understand that individual Municipal Water Users may calculate these numbers in slightly different ways, and that the numbers may not always be comparable from one water utility to another. If the 2017 Plan may have some disparities in the application of this measurement, we urge the TWDB to continue working toward the establishment of municipal use metrics that are clearly explained and easy to calculate, so that annual Water Use Surveys from each water supply entity will provide data that is compatible with the larger collection of data in each Regional Water Planning Area.
- III. Regional and State Water Plans should be encouraged to include Water Management Strategies that go beyond the Strategies identified in prior Plans.

The 2017 Plan provides comprehensive information on the various Water Management Strategies that the RWPGs have identified to meet potential water shortages in their Regions. These strategies appear to fall within the categories of “demand management” strategies or “water supply” strategies. Conservation savings, a form of demand management, are widely used across the state, and are extremely important mechanisms for meeting future water demands. However, there is little mention of water pricing as a form of demand management. On Page D-106 of the 2017 Plan, “water conservation pricing structures” are listed as one of the activities included in Municipal Conservation. We agree that water pricing exerts a significant influence on water demand, and we urge the TWDB to expand upon this concept.

Importantly, the 2017 Plan describes a scenario in which our state will struggle to meet potential future water shortages, and it describes conservation as a key strategy, especially when it requires no capital costs to implement. Water pricing also needs no infrastructure, and therefore avoids the increasing costs of meeting future water needs. In our view, the price of water has a substantial impact on water use, and water pricing, as well as traditional water conservation practices, should be considered as a viable form of “demand management” in each Region’s development of Water Management Strategies. If other WUGs have identified water pricing as a strategy for demand management, we encourage the TWDB to include water pricing as a separate item on the lists of Water Management Strategies. In addition, we ask the TWDB to provide guidance on this water pricing strategy to the RWPGs, and ask them to specifically address water pricing within their choices of Water Management Strategies for all water users – including agricultural irrigation users.

Again, thank you for the opportunity to provide these comments on the State’s newest water planning documents, and please let us know if we can be of any assistance in the TWDB’s efforts to plan for and facilitate the successful, long-term preservation and management of our state’s water resources.

Sincerely,



Jo Karr Tedder
President

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